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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/748,066	12/22/00	ZECH T	WESTPHAL.600

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EXAMINER	
LEON, E	
ART UNIT	**PAPER NUMBER**
2833	

DATE MAILED: 10/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application N .	Applicant(s)	
	09/748,066	ZECH ET AL.	
	Examiner	Art Unit	
	Edwin A. León	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang (U.S. Patent No. 6,280,214). With regard to Claim 1, Chang discloses a socket connector (1,3) that mates with a plug connector (5) to establish an electrical plug connector assembly, the socket connector (1,3) comprising: a housing (1) that includes a socket receiving aperture (16) formed by a housing wall; a U-shaped first contact part (4) mounted within the housing (1) and including first and second walls (426,422) that are nominally parallel; and a second contact part (2) mounted within the housing (1) to nominally contact the first movable contact part (426) in order provide an electrical connection between the first (4) and second (22) contact parts, wherein the plug connector (5) is inserted into the socket receiving aperture (16) the first wall (426) flexes radially with respect to the second wall (422) breaking the electrical connection between the U-shaped contact part (4) and the second contact part (22). See Figs. 1-4.

With regard to Claim 2, Chang discloses the first wall (426) flexing radially away from the second wall (422) when the plug connector (5) is inserted into the socket receiving aperture (16). See Figs. 1-4.

With regard to Claim 3, Chang discloses the first (426) and second (422) walls being integrally connected by a semicircular wall of (43) the U-shaped first contact part (4), and the socket connector (1,3) comprises a radially outward sloped guide wall mounted to slid first wall (426), wherein the sloped guide wall facilitates moving the first wall radially away from the second wall (422) as the plug connector (5) is inserted into the socket receiving aperture (16). See Fig. 4.

With regard to Claim 4, Chang discloses a connection plate (43) integrally attached to the U-shaped first contact part (4). See Figs. 1-4.

With regard to Claim 5, Chang discloses a least one holding protrusion (4266) integrally attached to the U-shaped first contact part (4). See Fig. 4.

With regard to Claim 6, Chang discloses the housing (1) being pot-shaped and including a central pass-through opening (16), the U-shaped first contact part (4) extending at least partially into the pass-through opening (16). See Figs. 1-4.

With regard to Claim 7, Chang discloses the housing (1) including an insulating part into which the second contact part (2) and the U-shaped first contact part (4) are inserted and operable positioned. See Figs. 1-4.

With regard to Claim 8, Chang discloses the second contact part (2) and the U-shaped first contact part (4) each comprising at least one holding protrusion (23,43)

that engages the insulating part to hold the second contact part (2) and the U-shaped first contact part (4) axially in place. See Figs. 1-4.

With regard to Claim 9, Chang discloses the insulating part including at least one identification protrusion (14) that extends from a main body of the insulating part, wherein the identification protrusion (14) identifies the position of the socket connector (1,3). See Figs. 1-4.

3. Claims 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Duff (GB Patent No. 2,307,113). With regard to Claim 10, Duff discloses a plug connector (42) that mates with a socket connector (40) to establish an electrical plug connector assembly, the plug connector (42) comprising: a housing (44); a contact pin (54,56,50) that runs axially through at least a portion of the length of the housing (44), and includes a pin base portion (54,56) and a pin projecting portion (50); an insulating shell (48) that coaxially surrounds the pin base portion (54,56); a metallic shell (58) that coaxially surrounds the insulating shell (54); and a spring loaded slider shell (58) that in spaced relationship coaxially surrounds the pin projecting portion (50), wherein the slider shell (58) axially slides upward when the plug connector (42) is inserted into the socket connector (40) to expose the pin projecting portion (50) to axially beyond the upwardly slid the spring loaded slider shell (58). See Figs. 1-4.

With regard to Claim 11, Duff discloses the spring loaded slider shell (58) comprising an axial exterior section that includes an outlet coaxial with the pin projecting portion (50), wherein the pin projecting portion (50) axially passes through the outlet, and the outlet is formed by an electrically non-conducting guide shell (54) positioned

between the pin projecting portion (50) and the spring loaded slider shell (58). See Figs. 1-4.

With regard to Claim 12, Duff discloses a spring (46) that is mounted to a first axial end of the housing (44) axially opposite to the spring-loaded slider shell (58) to support the plug connector (42) against a mounting wall. See Figs. 1-4.

With regard to Claim 13, Duff discloses the spring-loaded slider shell (58) comprising a coiled spring. See Figs. 1-4.

With regard to Claim 14, Duff discloses the housing (44) comprising a crimp connection. See Figs. 1-4.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (U.S. Patent No. 6,280,214) in view of Duff (GB Patent No. 2,307,113). Chang discloses the claimed invention except for the plug connector comprising a plug housing; a contact pin that runs axially through at least a portion of the length of the plug housing, and includes a pin base portion and a pin projecting portion; an insulating shell that coaxially surrounds the pin base portion; a metallic shell that coaxially surrounds the

insulating shell; and a spring loaded slider shell that in spaced relationship coaxially surrounds the pin projecting portion, wherein the slider shell axially slides upward when the plug connector is inserted into the socket connector to expose the pin projecting portion that axially projects beyond the upwardly slid the spring loaded slider shell and engages the first wall causing the first wall to radially flex relative to the second wall.

Duff discloses the plug connector (42) comprising: a housing (44); a contact pin (54,56,50) that runs axially through at least a portion of the length of the housing (44), and includes a pin base portion (54,56) and a pin projecting portion (50); an insulating shell (48) that coaxially surrounds the pin base portion (54,56); a metallic shell (58) that coaxially surrounds the insulating shell (54); and a spring loaded slider shell (58) that in spaced relationship coaxially surrounds the pin projecting portion (50), wherein the slider shell (58) axially slides upward when the plug connector (42) is inserted into the socket connector (40) to expose the pin projecting portion (50) to axially beyond the upwardly slid the spring loaded slider shell (58). See Figs. 1-4.

Thus, it would have been obvious with ordinary skill in the art to modify the connector of Chang by including the plug connector comprising a plug housing; a contact pin that runs axially through at least a portion of the length of the plug housing, and includes a pin base portion and a pin projecting portion; an insulating shell that coaxially surrounds the pin base portion; a metallic shell that coaxially surrounds the insulating shell; and a spring loaded slider shell that in spaced relationship coaxially surrounds the pin projecting portion, wherein the slider shell axially slides upward when the plug connector is inserted into the socket connector to expose the pin projecting

portion that axially projects beyond the upwardly slid the spring loaded slider shell and engages the first wall causing the first wall to radially flex relative to the second wall as taught in Duff to make the complementary function of the assembly more effective and improve the electrical path thru the connector.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kuriyama et al. (U.S. Patent No. 6,068,499), Togashi (U.S. Patent No. 6,099,334), Kyllonen (U.S. Patent No. 5,890,913), Neuenschwander (U.S. Patent No. 4,591,732), Togashi (U.S. Patent No. 5,989,046), Maruyama et al. (U.S. Patent No. 6,074,217), McLean et al. (U.S. Patent No. 6,106,314), Hida (U.S. Patent No. 6,241,541), Chung (U.S. Patent No. 6,162,078), Bendorf (U.S. Patent No. 5,470,243), Gauker (U.S. Patent No. 5,882,224), Broschard, III (U.S. Patent No. 5,893,767), and Wu (U.S. Patent No. 6,231,362) disclose electrical plug connector systems having sockets, plugs, contact pins and two contact parts.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (703) 308-6253. The examiner can normally be reached on Monday - Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

P. AUSTIN BRADLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

EAL
September 27, 2001